

Priority Science Needs (FY 11/12) – and call for statement of interests / proposal / contract application

AppLCC – Release Feb 29th	SE-CSC -- Release March 2nd	NE-CSC -- Release March 12th
<p>The Appalachian Landscape Conservation Cooperative announces the release of six Requests for Applications (RFAs) for contracts to support top science needs (below).</p> <p>Science priorities were identified during a 3-day Conservation Priorities Science Needs workshop in consultation with over 150 scientists and managers working across the Appalachian region.</p> <p>Total available funding range \$500,000 - \$700,000.</p> <p>Process: RFAs released Feb 29th. All bids must be received by March 29th 5pm EST. Contracts to be awarded in April.</p>	<p>The SECSC is interested in inviting Statements of Interest (SOI) that address the following five priority science needs (below).</p> <p>Science priorities were identified during a 3-day workshop in consultation with the coordinators and science coordinators for the South Atlantic, Peninsular Florida, Gulf Coast Prairies, Gulf Coast Plains and Ozarks, Appalachian, and Caribbean LCCs</p> <p>Total available funds are Approximately \$700,000.</p> <p>Process: SOIs accepted until March 13, 2012. March 30, 2012 selection of applicants for drafting of full proposals. April 13, 2012 – Full proposals due. April 27, 2012 – Awards announced.</p>	<p>Northeast Climate Science Center has just announced a request for proposals for science projects to be funded by the center (below).</p> <p>Science priorities were identified in phone consultation with the coordinators and science coordinators for the North Atlantic, Appalachian, Eastern Tallgrass Prairie & Big Rivers, and Upper Midwest Great Lakes LCCs.</p> <p>Total available funds are \$530,000.</p> <p>Process: Pre-proposals (SOI) are due by March 30. Selection of Pre-proposals: April 13. Final Proposals due: April 27. Final Funding Decisions May 7.</p>
<p>1. Inventory and review of ecological flow models and monitoring networks with applicability to Appalachian watersheds</p> <p>Goal: 1) Determine what ecological flow models are in use or are applicable to the Appalachian LCC that would result in predictions of both low and high flows; 2) Recommend suitable model(s) for instream flow predictions both dependent and independent of ecological/biological data (the availability of which may be lacking or disjunct for the Appalachians at this time). 3) Apply a predictive model(s) that assesses how existing permitted and non-permitted water uses and future climate conditions will alter critical hydrologic and hydraulic forces that maintain aquatic habitats; and 4) Forecast stream discharge for use in predictive habitat models and water supply estimates including municipal, energy and other industrial uses.</p>	<p>1. Synthesis of the state of the science regarding six topics important to the LCC efforts to manage sustainable landscapes:</p> <p>(a) regional downscaling of global climate models;</p> <p>(b) ecohydrology;</p> <p>(c) sea-level rise; modeling of urban growth;</p> <p>(d) unique climate-vulnerable and climate-sensitive ecosystems; and</p> <p>(e) the communication of scientific uncertainty to decision makers..</p> <p>Goal: for each of the individual topics listed below is to generate a synthesis of the current state of the science for the topic in relation to the information needs of the LCCs in the Southeast (SE). In general, these information needs are associated with the LCC objective of developing conservation adaptation strategies that support regional scale sustainable landscapes.</p>	<p>1. Critically Evaluating Existing Methods and Supporting a Standardization of Terrestrial and Wetland Habitat Classification and Mapping that Includes Characterization of Climate Sensitive Systems.</p> <p>Goal: Facilitate development of a standardized, consistent, and accurate landscape-scale dataset of terrestrial and wetland habitat and ecosystems based on a common mid-level classification framework for the entire Northeast-Midwest region (including adjacent areas of Canada); and Identify knowledge gaps and research to fill these gaps for vulnerable terrestrial and wetland habitats.</p>
<p>2. Development of a stream classification system compatible throughout the Appalachian LCC as a platform to study ecological flow issues</p> <p>Goal: Review existing hydrologic and geomorphic stream classification systems in the eastern U.S. to determine which system, if any, is best suited for use across the entire Appalachian LCC. Based on an expert evaluation of the initial review, recommend whether to adapt/extend existing classification systems or develop anew the best existing stream classification system for the Appalachian LCC.</p>	<p>2. Terrestrial connectivity analysis across the entire SE region</p> <p>Goal: The goal of this task is to improve the capacity to predict patterns of terrestrial habitat connectivity necessary to sustain natural resources, with consideration given to the approach used by Washington Wildlife Habitat Connectivity Working Group (http://waconnected.org).</p>	<p>2. Assembling Key Climate Data and Critically Evaluating Approaches for Stream Temperature and Ecological Flows to Help Identify Climate Trends and Input Data for Coupled Modeling Efforts and Monitoring.</p> <p>Goal: The NECSC seeks to unify climate and hydrology observational networks throughout the region to support integration of the watershed data collection network and facilitate coupled atmosphere-land surface-hydrology modeling capability needed to examine and understand these processes and develop and apply models for predicting the effect of climate change on stream temperature and hydrology and associated biological communities.</p>

<p>3. Forecast future spatial footprint of energy production across the Appalachian LCC region.</p> <p>Goal: To produce forecasting model(s), and produce Geographic Information System (GIS) products to provide a 20 year projection of the coal, natural gas, and wind energy development footprint across the Appalachians LCC by individual sector, and allow each of these sectors to be rolled into a cumulative footprint view to better understand the impacts on valued natural resources (species and habitats).</p>	<p>3. Conceptual model for regional-scale sustainable landscapes</p> <p>Goal: (a) Frame a conceptual model that links the concept of a sustainable landscape, at the scale of individual level III ecoregions in the SE United States that coincide with the boundary of the 7 SE LCCs, to the drivers and stressors that affect the sustainability of that landscape. This effort should involve a synthesis of the state of the current scientific and management thinking about the concepts that are part of this framework and how these concepts can be operationalized and measured. b) The conceptual model from (a) will be used, in consultation with the LCCs, to identify potential adaptive management strategies that may not now be commonly used in the SE; (c) the conceptual model derived from (a) and (b) will serve as the basis for identifying important knowledge gaps and research priorities.</p>	<p>3. Developing and Applying Models, Maps and Monitoring to Guide Adaptation Decisions Related to Sea Level Rise and Increased Storm Intensity.</p> <p>Goal: Evaluate options and apply a regional sea level rise model to assess habitat impacts along the North Atlantic coast as part of the existing landscape change model.</p>
---	---	---

<p>4. Landscape-scale maps of terrestrial habitat and ecosystems based on a common mid-level classification framework for the Appalachian LCC region.</p> <p>Goal: This project would need to be completed in multiple phase beginning with a synthesis and analysis of existing terrestrial habitat/ecosystems mapping initiatives, followed by subsequent modeling/mapping exercises to either extend existing products or develop new ones for the entire LCC region. At the completion of both phases, the project goal is to develop and deliver standardized, consistent, and accurate landscape-scale maps of terrestrial habitat and ecosystems based on a common mid-level classification framework for the Appalachian LCC region that is at a scale usable by on-the-ground resource managers.</p>	<p>4. Impact of mangrove migration on coastal ecosystems</p> <p>Goal: of this task is to understand what the impacts of a transition to mangrove communities means for terrestrial and aquatic flora and faunal communities, as well as impacts of this transition on broader coastal ecosystems.</p>	<p>4. Great Lakes Fisheries Trophic Structure Response to Climate Change.</p> <p>Goal: To develop information that can predict fish population response to climate change and other land use/water use interactions.</p>
<p>5. Survey inventory & distribution mapping of RTEE species across the Appalachian LCC</p> <p>Goal: This project will compile a list of rare priority species with associated geo-referenced distributions (information and GIS data layers to be compiled in widely compatible format coordinated with LCC staff); known population numbers or meta-population structure; and habitat association(s) for the entire Appalachian LCC boundary area. By creating a comprehensive, spatially explicit database for rare species and their habitats that is also cross-linked by community, landscape, and priority designations, while retaining Federal and individual state priority designations this will allow landscape-level coordinated conservation planning and delivery across the LCC.</p>	<p>5. Fish and wildlife responses to winter climate change: the need for snowfall and snow depth projections for the Eastern United States</p> <p>Goal: Projects should address these gaps (a) <i>Desired variables:</i> snowfall (cm), snow depth (cm), snow water equivalent, (b) <i>Temporal extent:</i> daily projections through 2100, (c) <i>Number of models:</i> as many as possible using the statistically downscaled projections already produced, (d) <i>Spatial extent of projections:</i> at a minimum, the eastern United States, (e) <i>Resolution:</i> ~1/8 degree, (f) <i>Accessibility:</i> via the Center for Geospatial Data Analysis GeoDataPortal</p>	<p>5. Identifying Potential Impacts of Climate Change on Urban Rivers, Parks and Refuges and Adaptive Strategies for Response to Climate Change in Urban Natural Resources.</p> <p>Goal: Evaluate environmental services and socio-economic values associated with urban river corridors; determine the potential impact of climate change on urban river hydrology, water quality, habitat values and recreational values, particularly in urban parks, refuges and other natural areas within urban landscapes.</p>
<p>6. Understanding Land Use and Climate Change in the Appalachian Landscape</p> <p>Goal: To better understand and address major environmental and human-related vulnerabilities of species as it relates to climate change stressors Key tasks are to: 1) Synthesize available published, gray, and website literature to determine species and habitats already identified as vulnerable to climate change impacts within the geographic scope of the Appalachian LCC. 2) Characterize the relative risk of vulnerabilities in a sortable database using a format widely available. 3) Assess existing approaches and determine the best methodology for vulnerability assessments in the Appalachians. 4) Apply the vulnerability assessment method deemed most appropriate to Appalachian species and develop a synthesis narration of key findings.</p>		<p>6. Effects and Interaction of Climate Change with Zoonotic, Wildlife, and Plant Disease in the Northeastern and Midwestern United States.</p> <p>Goal: Conduct research that will indicate how climate change will alter the distribution of zoonotic, wildlife and plant diseases and the interaction of disease with environmental contaminants in the Northeast and Midwest United States.</p>

<p>Eligible applicants: open application; must demonstrate sufficient fiscal oversight and reporting capacity</p> <p>POContact: Bridgett Costanzo, Science Coordinator AppLCC. (bridgett_costanzo@fws.gov)</p> <p>http://applcc.org/page/project-support</p>	<p>Eligible Applicants: Federal funds administered by the Southeast Climate Science Center (SECS) are available to investigators affiliated with North Carolina State University and with USGS science centers.</p> <p>POContact: Dr. Gerard McMahon, Director. (gcmahon@usgs.gov)</p> <p>http://www.doi.gov/csc/southeast/news/Southeast-Climate-Science-Center-News.cfm</p>	<p>Eligible applicants must be affiliated with, or partner with, the Consortium of Universities of the center or USGS.</p> <p>POContact: Interim Climate Science Center Director Rachel Muir (rmuir@usgs.gov)</p> <p>http://www.doi.gov/csc/northeast/upload/NECSC_Preliminary_Science_Focus_Areas.pdf</p>
--	---	--